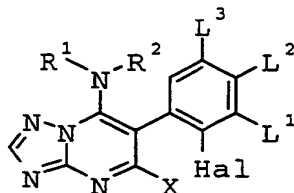


## Claims:

1. Substituted 6-(2-halogenphenyl)-triazolopyrimidines of formula I



I

in which

R<sup>1</sup> denote C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkynyl, or C<sub>4</sub>-C<sub>10</sub>-alkadienyl, C<sub>1</sub>-C<sub>10</sub>-haloalkyl, C<sub>2</sub>-C<sub>10</sub>-haloalkenyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, phenyl, naphthyl, or

a 5- or 6-membered saturated, unsaturated, or aromatic heterocycle, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom,

wherein R<sup>1</sup> and R<sup>2</sup> radicals may be unsubstituted or partly or fully halogenated or may carry one to three groups R<sup>a</sup>,

R<sup>a</sup> is cyano, nitro, hydroxyl, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>2</sub>-C<sub>6</sub>-alkynyl, C<sub>3</sub>-C<sub>6</sub>-alkynyloxy, or C<sub>1</sub>-C<sub>4</sub>-alkylenedioxy; or

R<sup>2</sup> denote hydrogen, or a group mentioned for R<sup>1</sup>; or

R<sup>1</sup> and R<sup>2</sup> together with the interjacent nitrogen atom represent a saturated or partially unsaturated 5- or 6-membered heterocycle, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom, which ring may be substituted by one to three R<sup>a</sup> radicals;

Hal is halogen;

L<sup>1</sup>, L<sup>3</sup> independently denote hydrogen, halogen, or C<sub>1</sub>-C<sub>4</sub>-alkyl;

L<sup>2</sup> is hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, or NH<sub>2</sub>, NHR<sup>b</sup>, or N(R<sup>b</sup>)<sub>2</sub>,

5 R<sup>b</sup> is C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-alkenyl, C<sub>3</sub>-C<sub>10</sub>-alkynyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>3</sub>-C<sub>6</sub>-haloalkenyl, C<sub>3</sub>-C<sub>6</sub>-haloalkynyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkylthio-C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, or C(=O)-A, in which

10 A is hydrogen, hydroxy, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-halogenalkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylamino or di-(C<sub>1</sub>-C<sub>8</sub>-alkyl)amino;

wherein at least one from L<sup>1</sup>, L<sup>2</sup>, and L<sup>3</sup> is not hydrogen;

15 X is halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy or C<sub>3</sub>-C<sub>8</sub>-alkenyloxy.

2. Compounds of formula I according to claim 1, in which

20 R<sup>1</sup> is straight chained or branched C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-alkyl, or C<sub>1</sub>-C<sub>10</sub>-haloalkyl, and

R<sup>2</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl, or

25 R<sup>1</sup> and R<sup>2</sup> together with the interjacent nitrogen atom represent a heterocyclic ring with 5 or 6 carbon atoms being optionally substituted with one or two C<sub>1</sub>-C<sub>4</sub>-alkyl groups.

30 3. Compounds according to any one of claims 1 or 2 in which R<sup>1</sup> and R<sup>2</sup> together with the interjacent nitrogen atom represent a 5- or 6-membered heterocyclic ring being optionally substituted with one or two methyl groups.

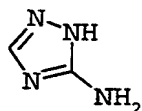
35 4. Compounds a formula I to any one of claims 1 to 3 in which X is halogen.

40 5. Compounds a formula I according to claims 1 to 4 in which thew 6-(2-halogenphenyl)group represents one of the following moieties:

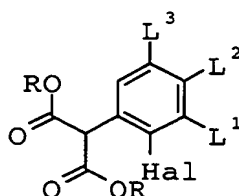
2,3,5-trifluorophenyl, 2,4-difluorophenyl, 2-F,4-CF<sub>3</sub>-phenyl, 2-F,5-CH<sub>3</sub>-phenyl, 2-Cl,4-F-phenyl, 2-F,4-Cl-phenyl, 2-F,4-Br-phenyl, 2-Cl,4-Br-phenyl, 2,3-difluorophenyl, 2,4-difluoro-phenyl, 2,4,5-trifluorophenyl, 2,3,4-trifluorophenyl,

2-F,4-NHC(O)CH<sub>3</sub>-phenyl, 2-Br,3,5-difluorophenyl,  
2-F,4-NO<sub>2</sub>-phenyl, and 2-Cl,4-NO<sub>2</sub>-phenyl.

6. A process for the preparation of compounds of formula I as  
defined in claims 4 and 5 which comprises reacting  
5-amino-1,2,4-triazole

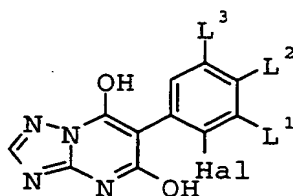


with 2-phenyl-substituted malonic acid ester of formula II,



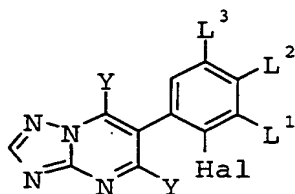
II

wherein Hal, L<sup>1</sup>, L<sup>2</sup>, and L<sup>3</sup> are as defined in formula I, and R  
denotes C<sub>1</sub>-C<sub>6</sub>-alkyl, under alkaline conditions, to yield com-  
pounds of formula III,



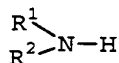
III

which are subsequently treated with a halogenating agent to  
give 5,7-dihalogen-6-phenyl-triazolopyrimidines of formula IV



IV

in which Y is halogen, with an amine of formula V

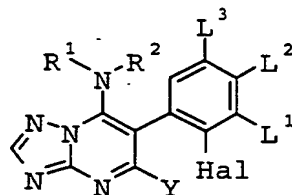


V

- in which R<sup>1</sup> and R<sup>2</sup> are as defined in formula I to produce com-  
pounds of formula I.

7. A process for the preparation of compounds of formula I ac-  
cording to claim 1 wherein X is cyano, C<sub>1</sub>-C<sub>10</sub>-alkoxy, or  
C<sub>1</sub>-C<sub>10</sub>-haloalkyl, which comprises reacting 5-halogen-triazolo-  
pyrimidine of formula I',

45



I' (X=Hal)

wherein Y is halogen, with compounds of formula VI,

M-X'

VI

which are, dependent from the value of X' to be introduced, an anorganic cyano salt, an alkoxylate, haloalkoxylate or an alkenyloxylate, resp., wherein M is ammonium-, tetraalkylammonium-, alkalimetal- or earth metal cation, to produce compounds of formula I.

8. Intermediates of formulae II, III, and IV as defined in claim 6.

9. A composition suitable for controlling phytopathogenic fungi, comprising a solid or liquid carrier and a compound of the formula I as claimed in claim 1.

10. A method for controlling phytopathogenic fungi, which comprises treating the fungi or the materials, plants, the soil or the seed to be protected against fungal attack with an effective amount of a compound of the formula I as claimed in claim 1.